RESOURCE DEVELOPMENT AND MARKET VALUE FOR NON-WOOD FOREST PRODUCTS OF THE BANYANG-MBO SANCTUARY OF NGUTI, CAMEROON

Abstract

The research begins with a brief history of the Banyang-Mbo Sanctuary (BMS) of Nguti, its demographic and geographic dispersion. Next, we aim to identify and analyze the various non-timber forest products, which range from plants, animals, birds and marine species.
With the aid of write-ups from the Wildlife Conservation Society (WCS) Cameroon, the spatial distribution of these products, vis-à-vis their proximity to surrounded villages is presented. Effort is equally made to know the activities of the villages and other environmental factors that affect the growth and existence of these products. Three objectives and three hypotheses were formulated to give direction to the study. Convenient and purposive sampling techniques were used in the study with the help of questionnaires for data gathering. The population of the study comprised 141 households in Nguti vicinity and a sample size of 105 respondents obtained with the use of Yaro Yamen's formula. The statistical tools used for data analysis were frequency, mean and tables of percentages to organize the data collected. The instrument was validated by three experts and reliability justified by a coefficient. The study recommended that education on the development of non-wood forest resources should be practically oriented and existing markets should be sustained while new ones be sought for the sales of the final products.

Keywords: non-wood forest products, participatory rural appraisal, market value, and yaro yamen formula

1. Introduction

1.1) Background to the Study

The Banyang-Mbo Sanctuary of Nguti Subdivision began as a traditional native community forest in 1936 and its evolution progressively changed status until 1996 when it was finally named as a Sanctuary with a responsibility of sustaining the resource and conserving protected species and empowering the local people to manage the area sustainably.
Non-Wood Forest Products (NWFPs) include foods (nuts, fruits, mushrooms, honey, animals); food additives (spices, herbs, flavorings); fibers (canes, bamboos, thatches); plant and animal products with medicinal value. Some of the non-wood forest products exploited are: Ivringia spp (Bush mango), Ricinodendron spp (Njangsa), Gnetum spp (Eru or Okok), Piper guineensis (Bush

pepper), Hacosperma secondiflorum (Monkey kola), Garcinia cola (Bitter cola), Kola accuminata (Kola nut), Scorodoploeus zenkeri and Afrostyryx cameroonensis (Achu-soup spice), Pandanus spp (screwpine) and Elaeis guineensis (Oil palms).

Non-wood forest products are composed of a broad variety of products of plant or fungal origin extracted from forests and have been used and valued by communities across generations, but many of the products lack systematic research or quantification of the values they provide (Alexander R, Malden M (2001). Due to lack of proper data on the exploitation of these resources, there is high interest in research on the management and sales of these products as an alternative source of livelihood. As interest increased, researchers faced challenges of informality and secrecy, which are typical of many non-wood forest product markets (Alexander et al. 2002b, McLain et al. 2008).

The community valued specific products for cultural or spiritual purposes. This was particularly true among indigenous peoples of Nguti Subdivision, who have longstanding traditions of non-wood forest products collection and deep connections to the landscapes where they are found (Carroll et al. 2003). Surrounding village communities of people may also have cultural connections to species and products found in the Bayang-Mbo Sanctuary, which in some cases have similarities to those found in their countries of origin (Lake et al. 2018).

It can be noted from past research that non-wood forest products can be the sole source of subsistence I the livelihoods of many villagers where their commercial sales are valuable sources of income for people, seasonally or during times of economic distress The diversity of non-wood forest products makes them difficult to study as a group, or to analyze and synthesize in a universally applicable way (Alexander et al. 2001).

We equally note that although many and different exploiters harvest, trade, and consume non-wood forest products, relatively little is known about their management and market value in terms of the benefits they provide to individuals and the community at large. We endeavored to describe formal and informal markets for these products, and the extent to which and reasons why many of the details of these markets remain unknown to researchers and decision makers. We provided examples of the market values of some commonly exploited species and identified information gaps and research needs to improve how they are developed and sold.

Included in the findings of this study we witnessed lack of interest in developing non-wood resources, lack of sufficient time allocated to develop non-timber resources, lack of innovation, lack of creative skills, poor attitude of villagers towards practical lessons on resource development, and poor use of facilities available in resource development.

Furthermore, education by the Local Government, NGOs and Sustainable forest management Projects should provide more practical lessons that involve participation of villagers, practical materials should be made available and accessible to users by the local council and should

provide incentives for villagers who develop non-wood forest resources for likelihood or for easy access to the business world. Among many others are the factors that will improve the resource development skills and available defined markets for the villagers.

1.2 Statement of the Problem

Although many individuals and communities depend on the Non-wood forest products for likelihood and have some common understanding of some of these products, markets, and dispersion, there is limited understanding of market value. In addition, there is a general belief that harvesters, buyers, and companies engaged in the wood industry are not willing to share detailed information for fear of competition and fear that their identification will enable them pay taxes or issue exploitation licenses. This is because no single classification scheme or data source adequately summarizes production of this sector and combining data from different sources creates gaps and inconsistencies. The lack of information distorts the ability to provide a comprehensive and dynamic analysis of the market value of forests for the many non-wood products harvested and transacted in formal or informal markets.

1.3 Purpose of the Study

This study aimed to identify the ways of motivating resource development skills amongst the indigenous population. The specific objectives of the study were

- To identify the resource development skills available for exploiters
- To identify the factors hindering the attainment of market value by the indigenous population
- To identify possible factors that could sustain resource development skills in the indigenous population.

In order to achieve the above objectives, the following questions were examined.

1.4 Research Questions

- What is the degree of sustainable management of non-wood forest products of the BMS?

- Why do exploiters of non-wood forest products of the BMS not attain their market values?

- What can be done to sustain resource development skills amongst the indigenous population?

2. Methodology of the Study

Both the quantitative and qualitative methods were used to assess the involvement and use of the forest products by the local people.

2.1 Choosing the villages

We carried out Participatory Rural Appraisals (PRA) in 54-project villages to select those that used non-wood forest products from the Sanctuary. From the fifty-four, four villages (Eyang, Ekenge, Nguti Centre and Manyemen) comprising cosmopolitan harvesters with diverse economic uses were identified.

2.2 Choosing the participants

Within the four villages we held Community meetings to identify non-wood forest product exploiters. Group meetings were then held with non-wood forest exploiters to select household representatives based on the range of products used, quantity collected, quantity sold and the age and sex of collectors. From this exercise, twenty-five to thirty-five participants in each village were selected depending on village population size and a population of 141 was determined. From this population, a sample size was determined.

2.3 Conservation Attitudes of the Local Population

The attitudes of local people living adjacent to the Banyang-Mbo Wildlife Sanctuary were assessed using secondary information, direct observation, and informal discussions. Variables of interest included the attitudes of local people towards the sanctuary, the project and technical staff and illegal exploiters on one hand, and how resource use patterns and problems and past interactions with the protected area and technical staff influence these attitudes on the other hand.

3.4 Determination of Sample Size

The sample size for the study was 105 households. This was arrived at through a scientific method where Yaro Yemen's formula was adopted. This was mathematically represented thus;

Where:

n = sample population

1 = constant

N = population (141)

e = degree of error (0.05)

Substituting: = 104.3 ≅ 105

3.4.1 Sample and Sampling Techniques

This research work adopted convenient and purposive sampling techniques. The reason for adopting convenient techniques was to ensure that all the households have an equal chance of being selected.

5. Instrument for Data Collection

A structured questionnaire was used for data collection. The questionnaire was categorized in four (4) sections; A. B, C, D and E

Section A: Identification data of Respondents.

Section B: Identifying skills and methods used to harvest non-wood forest products.

Section C: Identifying factors that are hindering the non-attainment of market value by collectors

Section D: Identifying possible factors that can sustain the development and sales of these products.

A four point rating scale was used for rating. Thus, Strongly Agreed (SA), Agreed (A), Strongly Disagreed (SD), Disagreed (D): with values 4, 3, 2, and 1 assigned respectively.

5.1 Validation of Instrument

The Instrument was validated by two experts (Marketing Lecturer, and a Conservationist). The contribution of these reflected in the final draft of the instrument.

5.2 Reliability of the Instrument

To show how genuine, guaranteed, and reliable our instrument was, ten copies of the questionnaire were administered on ten of our colleagues and it was used as sample collection. Thus, the questionnaire was judged reliable for data collection.

6. Data Analysis Techniques

The statistical tools used for data analysis were frequency, mean and simple percentages (%). Frequency was used to organize the data collected and Percentage (%) was used to organize the demographic data of the participants while mean was used to analyze the responses to research question. The mean was calculated by assigning nominal values to the response categories. Strongly agree (SA); Agree (A); strongly disagree (SD); Disagree (D) with weighted values 4, 3, 2 and 1 assigned respectively, meaning Strongly Agree 4 Agree 3 Strongly Disagree 2 Disagree 1

Hence, the mean was computed as follows:

To this extent, the cut-off became 2.5, and any value below 2.5was regarded as disagree while above 2.5 was considered as agreed.

An interval of a scale of 0.5 was added to the mean to give 3.00, any response of 3 and above was considered as agreed while responses with less than 3.00 were considered as disagreed.

7. Findings and Discussion

A total of 105 individuals participated in the study eighty females and twenty males with their levels of education ranging from no level, elementary level, secondary and high school to graduate level.

The Study revealed that the majority of the households (76.2%) were females while the minorities (23.8) were males. This could be attributed to the fact that most informal harvesters are generally of the female folk. This result is in line with Okedi (2012), who stated that majority of households in non-wood forest exploitation in Cameroon are females.

It was revealed that, a majority (39.0%) of the respondents was of the elementary level of education followed by zero level of education (31.4%) and graduates formed a minority (3.8%) of the respondents. This result could be attributed to the fact that as the level of education increases, the households tend to pursue more tertiary jobs. It was only the few (3.8%) of them that remain back in the village and join in non-wood forest exploitation activities

The results equally revealed that out of the six-item statement on major skills and methods available for harvesters, all the skills are available for households. The result further revealed that the respondents had a mean range of 2.78 to 3.53 showing that the skills were all available for the households. These findings is in line with Krueger (2000) that stated that forest exploiting is a career that offers and encourages skill acquisition, creativity and training in major areas of life.

It was also revealed that out of ten-item statement on the factors hindering the non-attainment of market value by exploiters in BMS, respondents with a mean score of 3.29 agreed that they have poor interest in the activity, respondents with a mean score of 3.00 accepted that households spend more time looking for white collar jobs. Respondents with a mean score of 3.26 agreed that there’s a high financial burden and stress to look for markets, insufficient time allocated to the activity of exploitation and no access roads in the forest, respondents with a mean score of

3.29 agreed there's no support from the local council. Respondents with a mean score of 2.11 disagreed that the harvesters have little knowledge of markets and those with a mean score of 2.16 equally rejected that the harvesters are ignorant of the financial benefits of exploitation; respondents with a mean score of 2.93 agreed that the harvesters have no interest in being self-employed. Respondents with a mean score of 2.87 agreed that they have poor attitude towards the search for distributors.

From these findings, it is evident that eight out of the ten items were accepted while two items were rejected as factors hindering the attainment of market value. These findings agree with Mgboro (2003) who stated that lack of interest in search of proper market outlets for forest materials will make it difficult to determine proceeds.

Furthermore, results revealed that out of the six-item statements listed as the factors of improving entrepreneurship skills among harvesters, all the respondents showed a total agreement, because the mean scores achieved on the item listed as the factors was above 2.50 which was the criterion mean score for this research. Furthermore the mean score ranged from 2.97 to 3.31. These findings agree with Lubert (2001) who stated that attending more meetings and practicing, organizing skill exhibition and workshops, promoting business ideas among others are the factors of improving resource development skills among non-wood forest harvesters.

Finally, results revealed that out of the nine-item statements listed as strategies to sustain resource development skills amongst the indigenous population, all the respondents showed a total agreement except item number one with a mean score of 1.86 which was rejected, because its mean scores were below 2.50 which is the criterion mean score for this research. Furthermore, the mean score ranges from 1.86 to 3.34. These findings agree with Lubert (2001 who stated that goal setting, practical oriented courses, promoting of business ideas, skill exhibition among others are the measures of enhancing and sustaining skills in the non-timber forest resources.

8. Conclusion

Non-wood forest products are composed of a broad variety of products of plant or fungal origin extracted from forests and have been used and valued by communities across generations. Exploiters of these products need harvesting skills and markets to become self-employed and independent. The rate of unemployment in the village is very high hence resource development and market value seek to solve problems facing individuals, families and groups in this area. Resource development and market value is capable of solving this problem by equipping the harvesters with the skills necessary to create jobs, thus reduce the number of unemployed youths.

This study was able to successfully identify the resource development skills of households in the BMS, factors that are hindering the attainment of market value by collectors and possible factors that can sustain the development and sales of these products. After having these skills harvesters need to acquire other skills like, communication skills, negotiation skills, planning skills, business plan, etc. to manage their resources and businesses or firms. Factors that are hindering the acquisition of skills can be taken care of by providing more publicity to the importance of resource management and providing incentives for all harvesters. The strategies for enhancing and sustaining the development and sales of these products should be followed judiciously to attain the goal of reaching their full market value. The need to sustainably manage non-wood forest resources is imperative for all the harvesters in the BMS.

9. Recommendations

Based on the findings of the study, the following recommendations were made;

1) Sustainable resource development should be pursued with vigor by all harvesters.

2) Incentives should be provided for harvesters.

3) Resource development meetings should be practically oriented as this will help to improve harvesters' creativity and innovativeness.

4) Training and re-training programs should be arranged for all harvesters to improve on their effective skills in exploitation.

5) Conferences, seminars and workshops should be periodically arranged for harvesters and as this will assist them to update their knowledge and skills.

6) Small holders' schemes and sponsorships should be encouraged.

7) Markets should be sought at the local, national and foreign levels for the sales of these products.

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